

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:	§ Confirmation Number:
Rensin et al.	§ 3461
Serial No.:	§ Group Art Unit:
09/834,380	§ 2157
Filed:	§ Examiner:
April 13, 2001	§ MEKY, Moustafa M.
Title: SYSTEMS AND METHODS FOR	§ Atty. Docket Number:
SAVING INTERNET CONTENT	§ 05002.1060
INTO A HANDHELD INTERNET	§ " which was assigned serial number
APPLIANCE	§

DECLARATION UNDER 37 C.F.R. § 1.131 OF MICHAEL J. DEHAEMER JR.

Mail Stop Amendment
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

To the Office:

1. My name is Michael J. DeHaemer Jr., and I am a registered United States patent attorney, having been assigned registration number 39,164.
2. During the period before November 1, 2000 and continuing until after April 13, 2001, I was employed as a patent attorney for the firm of Fish & Neave having offices at 1251 Avenue of the Americas, New York, New York 10020.
3. On November 30, 2000, a meeting was held to review several inventions by OmniSky Corporation, a client of Fish & Neave at that time. Subsequent to this meeting, I received a memorandum from Norman H. Beamer dated March 30, 2001 providing an overview and summary of this November 30, 2000 meeting and the information that was disclosed during the meeting. A copy of this memorandum is included in Exhibit A.
4. The March 30, 2001 memorandum indicates that Fish & Neave received documents regarding three OmniSky inventions (see pages 1-2 of Exhibit A). These inventions were referred to as (a) One Tap Fill, (b) One Tap Act and (c) One Tap Load. The memorandum also states that One Tap Load had already been deployed at least as early as October of 2000. A copy

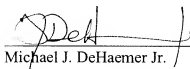
of Marketing Requirements Documents for these inventions dated January 24, 2000 and January 25, 2001 are included in Exhibits B1 and B2 and describe various aspects of these inventions.

5. From a date prior to April 12, 2001 and continuing until April 13, 2001, I reviewed the above-identified documents, as well as others, that provided support for the above-identified inventions, and diligently worked on the preparation of draft patent applications based on these documents.

6. On April 13, 2001 I filed a United States Non-Provisional Patent Application entitled "Systems and methods for automatically accessing internet information from a local application on a handheld internet appliance" which was assigned serial number 09/834,376 and was assigned a Fish & Neave attorney docket number of OS-003A. This application was based on the technology disclosed in the documents provided in Exhibits A and B1 and B2.

7. On April 13, 2001 I filed a United States Non-Provisional Patent Application entitled "Systems and methods for saving internet content into a handheld internet appliance" which was assigned serial number 09/834,380 and was assigned a Fish & Neave attorney docket number of OS-003C. This application was based on the technology disclosed in the documents provided in Exhibits A, B1 and B2.

8. I hereby declare that all declarations made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 to Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



Michael J. DeHaemer Jr.

2/8/2007

Date

**FISH & NEAVE**

MEMORANDUM

TO	MATTER	DATE
Mark Rowland Patricia Campbell Mike DeHaemer Marcia Ramos	<u>OmniSky</u>	March 30, 2001

FROM	SUBJECT
Norman H. Beamer	OmniSky patent applications

Here are my notes on selected OmniSky patent applications, based on the 11/30/00 meeting:

One-Tap (List Items 5-7; Matter 003)

Three different variations of One-Tap allow the user to perform three functions, each with a single tap on the screen of a handheld device:

- One Tap Fill transfers information from a database in the handheld device to a form on the Web
- One Tap Act invokes a Web query from a local application on a handheld device
- One Tap Load transfers Web content into a local application on a handheld device

One Tap Load was introduced in Version 2 in October, 2000. As of last November, the other two variations had not

yet been implemented. We have received writeups on Fill and Act. John Muniati is the contact.

The one tap inventions address the problem of communication between two different user interface approaches: the structured approach of the handheld display, and the relatively unstructured approach of a typical Web page. The structured approach provides an environment in which data is easily manipulated and the user can easily and efficiently use the interface. Such structured applications as address books, calendars and to-do lists are the typical application. One disadvantage of this approach is that the software for each application must be specially written from scratch.

The unstructured Web applications are easier to set up, but it is harder to infer structure - i.e., to insert data, or pick off data, to/from a form.

It is a particular problem to transfer information back and forth between the structured handheld and the unstructured Web page.

For one tap fill, the information from a local database is inserted into a Web form. The content provider includes a button on the OmniSky display that, when tapped, calls up an address book and takes specific fields from the address book.

For one tap act, a web query is invoked from inside a local application using local data. E.g., in an address

book, a button is tapped to submit an address and get directions to that address.

For one tap load, a single tap loads web data into a local database. E.g., if the user has a display of a Travelocity itinerary, the provider supplies a special button (because it knows that the handheld is being used as a result of certain interaction attributes) that, when tapped, transfers information into the personal calendar.

Note on prior art – the Coola service, by ASP in Boston, provides tags which display a button. The contents behind the button are sent to the Coola server. During synchronization, the information is downloaded to the Palm Pilot address book.

Network Side-Content Insertion (List Item 11; Matter 002)

This involves insertion of additional items into the content that comes from the Web, before it is displayed on the handheld screen. There are four variations:

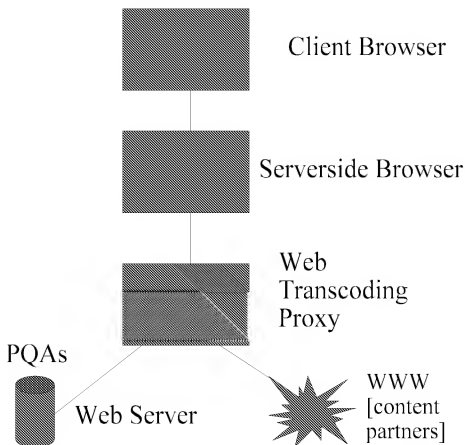
- Replacing local links via transcoding
- Inserting Web API specifications at transcoding stage
- Inserting links to enable adding page to local bookmark list
- Wireless ad serving via content insertion and transcoding

The first and third items were in Version 1, of May,

2000. The second item was in Version 2, of October, 2000. The fourth item has not yet been implemented. We have not received any writeups on this topic. Dave Mencone is the contact.

As background to these inventions, it must be understood that the OmniSky process involves the client browser installed in the handheld, a server browser installed at the OmniSky site, and a Web transcoding proxy server at a site owned by Aether Systems, called ScoutWeb. Fig. 1 shows the layout:

The web transcoding proxy is a service that takes web content and reformats it (e.g., shrinks it) to fit onto the handheld device. The service presumes that there are "content partners" who allow and facilitate this conversion. Examples of content partners are Travelocity, MSNBC and Yahoo News. In addition to ScoutWeb, Spyglass and WebTV provide this service.



Taking the above variations in reverse order, the fourth variation inserts ads from Doubleclick into the content (with the content provider's permission). The third item is necessitated because the current browser doesn't have bookmark ability. So a portion of the screen is allocated to allow for bookmarks, and the OmniSky logo is added to the web page, which when tapped takes the user to "home" to add a bookmark. The second variation adds Web API's. For example, it adds the tags for one-tap load.

The first variation replaces local links. In the prior art approach, for the wireless Palm, in order to save bandwidth, there are Palm Query Apps (PQAs). The Palm has a collection of Web pages stored locally. E.g., a first page in a sequence is already locally stored. If it is a form, it can be filled out locally, clicked, and sent out to the Web. The problem with this approach is that it limits Web variety, and the links on the local form must remain current. There is a large distribution problem when there is a change.

To accommodate this, OmniSky puts the PQAs on its own server. So the first Web page comes from the PQA server. This way, OmniSky can fix the broken links once on its server. Then the local links of the PQA must be replaced by links on the PQA server in the Transcoding Proxy. [Question, not answered at meeting: why don't the URLs of the PQAs change?]

OS Link (List Item 13; Matter 006)

This is a method for remote document management from a handheld device to a user's desktop. It was implemented in Version 2, May, 2000. It allows document forwarding, message deletion, etc. We need the products requirement specs for this topic. John Hanay, jhanay@omnisky.com, is the contact.

In a typical mail setup in a corporation, there is an e-mail server inside a firewall, to which desktops on a network send and receive e-mail. The server takes care of forwarding the messages between users. It allows e-mail from the internet through the firewall. But a person on a laptop cannot check his or her e-mail from outside the firewall, unless special remote link software with security is used.

So the problem is to allow a user full access to his or her mailbox using a handheld, outside the firewall. One prior art solution is Mail Redirector, by RIM (Research In Motion). It puts an e-mail proxy server outside the firewall, and puts a program on the workstation that sends out every received e-mail to the e-mail proxy server. (RIM now has a server solution, so it is not necessary to keep the desktop turned on) [Other prior art also includes CORTOST, which has a message redirector, remote mailbox, and similar functionality.]

But this is not enough, because you want to reflect reads and deletes back to the main station. When you again

sign on at your desktop, you don't want to be presented with e-mail already read or deleted during the remote access.

The solution is to create a back channel which sends e-mail back to the redirector, which communicates with the internal e-mail server to make the necessary updates.

Document Management Functions In A Wireless Environment (List Item 12; Matter 006[?])

See the "SkyDoc" specs.

OmniSky

OneTap™
OneTap™ Act

Marketing Requirements Document

Draft 1.5

1/24/00

Hee Jung Lee

Availability: TBD

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1 Overview

As part of the OneTap™ initiative, OneTap™ Act will more tightly integrate the PDA and the Web by providing users with quick and easy access to their most used Web sites and applications from anywhere on the PDA including PIM applications, Web applications, and other PDA Applications. This product will also simplify and enrich the user's mobile Internet experience by intelligently using information across the "boundaries" that unnecessarily exist today. OneTap™ Act can be seen as a "right-click" for the PDA. This will enhance the OmniSky service and promote customer and vendor acquisition and retention.

2 Release Objectives

- Continue to position OmniSky as the leading provider of wireless services.
- Continue supporting an overall OmniSky OneTap™ strategy, whereby OmniSky takes leadership position in working with premier online services and eCommerce merchants.
- Be the first to announce and ship functionality of this type.
- Deliver an end-user feature that demonstrates true value-added benefits to the mobile professional when OneTap Actions can be launched from Web pages using the active Web content
 - OneTap Actions on Address content: Save to Address Book, Save to Date Book, Save to Memo Pad, Map It, Driving Directions To, Driving Directions From, Email To, Email It, Call, Go To URL, etc.
 - OneTap Actions on Event content: Save to Date Book, Email It
 - OneTap Actions on Note content: Save to Memo Pad, Email It
- Deliver an end-user feature that demonstrates true value-added benefits to the mobile professional when links to OneTap™ Actions are accessible directly from any application on the PDA. The Actions must be context sensitive to the active application and data.
 - OneTap Actions: Save to Address Book, Save to Date Book, Save to Memo Pad, Map It, Driving Directions To, Driving Directions From, E-mail To, Call, Turn Modem Off, Go To URL, etc.
- Continue building the foundation for OmniSky to work with third-party merchants, web service providers, and developers to offer new solutions in the mobile space. Use this foundation to "lock in" both partners (with better joint offerings) and consumers (with unique functionality).
- Create a revenue source from slotting fees.

2.1 Availability

- Beta TBD
- General Availability – TBD

3 Target Market

3.1 Primary User Profile

- Sales, marketing, and technical professionals in hi-tech/computer related field
- Travels frequently or are away from their connected desktops frequently
- Actively uses their PDA to manage calendar, contact lists, to do list, and to make notes (memo pad).
- Actively uses the Web to access information, make travel reservations, perform online transactions, shop, etc.

3.2 User Scenarios

The general user scenario is any situation where the mobile professional is using his or her PDA and wishes to launch another Action (mobile commerce Web site, URLs, PDA apps, etc.), using the active data (address record, Web content, etc.), as appropriate.

The scenarios depicted below are meant to be examples of how OneTap™ Act will be used. These specific examples should give a good understanding of what is generally possible. Please note that these examples are NOT confirmed as offerings for this release: as we move forward on this project we will be defining good candidate sites, and signing up the best ones to launch with.

Scenarios:

3.2.1 Web Example	Example of saving active Web content to the Address Book and launching another Web application with the active Web content.
3.2.2 Calendar Example	Example of launching a website from the Calendar and taking relevant Calendar information and pushing it up to the Web
3.2.3 OSMail Example	Example of launching a website from the E-Mail app and taking relevant information and pushing it up to the Web

3.2.1 Web Example

Web Example: Fodors.com

Scenario: Sue is an Internet consultant who typically works on a project for 4-8 weeks at a time in a major metro area, and often returns to these cities on for business or pleasure. Since she works hard and has a big expense account, she likes to discover the better restaurants and will revisit good ones.

Problem: While Sue likes using Fodors.com to *search* for new restaurants, she wants a contact list of her favorite restaurants in each city she works and travels in.

Solution: Sue browses Fodors.com in Denver and, after finding the restaurant that she wants she taps on OneTap™ “Save Address”, and is pleased to have her favorite Denver restaurant now in her address book. After this record gets saved, Sue is returned to the Fodors.com site. She taps on OneTap™ “Map It”, and sees a map of the restaurant and its vicinity. She is very pleased to be able to get a map of the restaurant quickly without having to navigate to MapQuest and reenter the data that is already displayed on her PDA screen.

3.2.2 Calendar Example

Calendar Example: travelocity.com

Scenario: Joe is a salesman for a nationwide conglomerate and is a frequent flier. He uses his Palm Vx to keep his calendar, and Travelocity to book flights. Sometimes he needs to book new flights or change flights while on the road.

Problem: With his full and changing travel and work schedule, managing his calendar is a continual challenge for Joe.

Solution: On checking his calendar on his Palm Vx, Joe realizes that he needs to be at several business meetings in Seattle next week. He selects the “OneTap™ Reserve Flight” option from his calendar to launch the Travelocity web site. The departure date field has already been populated with the date he was checking and the departure city has been populated with his default departure airport from his user profile (not yet available). He taps on the return date field and chooses the date

and time from his personal Date Book after checking his other appointments (not yet available). He completes the travel reservation and is presented with the itinerary. He taps on OneTap™ “Save” to save this information to his Date Book.

3.2.3 *OSMail Example*

OSMail Example: vicinity.com

Scenario: On her way to make a sales pitch, Megan’s luggage containing her presentation slides get lost by the airline.

Problem: Megan needs to find a Kinko’s to print replacement slides fast!

Solution: Megan remembers that address of the client site was written to her in an email message. She launches OSMail, finds the message and selects the address text. She then launches OneTap and selects “Find Nearest” to arrive at the Vicinity BrandFinder site with the address already loaded. She taps to select Kinko’s and is pleased to get the contact information for the closest Kinko’s to her client site. She goes to this Kinko’s & prints out her slides before going into her meeting.

3.2.4 *Supported Scenarios*

This release will support:

- Context sensitive OneTap Actions from OneTap enabled Web sites
 - Active content types: Address, Event, Note
- Context sensitive OneTap Actions from PIM apps, w/ transfer of PIM data as relevant in executing Actions
 - Address Book
- Actions from apps w/ selected text
 - Limited supported on Pocket PC w/ Pocket IE & Pocket Outlook
 - Not supported on Palm

See the Product Requirements section below for details.

3.2.5 *Unsupported Scenarios*

This release will not support:

- User Customization of Actions and Action Apps or vendors
- Actions from apps w/ selected text
 - Not supported on Palm

4 Product Requirements

This section describes the high level requirements. More extensive functional and user interface definition are depicted in the product requirements and technical specifications documents.

Fundamentally, OneTap™ Act gives users the ability to quickly launch OneTap™ Actions from anywhere on the PDA. Wherever possible, the relevant data from the active application will be transferred to the Action application. OneTap also enables Actions for Web pages w/ OneTap-enabled Web content.

4.1 User Interface

In general, OneTap Act will be launched from any application on the PDA via a universally available OneTap control (ex. A special OneTap stroke on the Palm or tap & holding on the OmniSky icon on the title bar on Pocket PC). It can also be launched from Web pages w/ OneTap-enabled Web content by tapping on a OneTap button. A context sensitive menu appears listing the appropriate OneTap Actions. Tapping on one of the menu items launches the Action application. See the HIS document for more details.

4.2 Partner Web Sites

4.2.1 *OneTap Enabled Partner Sites*

To OneTap enable their Web sites, OmniSky partners must embed the OneTap APIs into their HTML documents to “activate” Web content. These Web pages will display a OneTap button that users can tap to access the OneTap menu. The OneTap API may look like this (See the OneTap API Specification document for details):

```
<!--
  OneTap
  ContentType=Address
  LastName=Smith
  FirstName=John
  Address="1000 Main Street"
  City=Denver
  State=CO
  ZipCode=00000
-->
```

4.2.2 *OneTap Action Providers*

To become a OneTap Action provider, OmniSky partners must register with the OmniSky OneTap Administrator. Information about their URL, script parameter names (if relevant) and Act category is required. For example, if MapBlast wants to be the Get Map action provider, we need the following information from them:

```
“Get Map”
http://www.mapsite.com/map.mb?AD2=&Address&CITY=^City&STATE=^State&ZIP=^Zip
```

This information is stored into the OneTap Database and is updated on the client PDAs via ScoutSync.

4.3 Context Sensitivity

The OneTap menu items are context sensitive to the active application and the active data. For example, the user will be presented with a different menu if he/she were to launch OneTap from the Address Book as opposed to the Date Book. The menu items will be targeted to provide the services that make the most sense within the context of what the user is doing.

4.3.1 Address

The following OneTap Actions will be available when the active context is an address: Save Address, Get Map, Directions To, Directions From, Find Closest, EMail To, Attach to EMail. You are in the address context when you launch OneTap from Address Book record, tap on the OneTap button from a OneTap enabled Web site w/ an "activated" address, or launch OneTap on vCard attached to an email message.

4.3.2 Event

The following OneTap Actions will be available when the active context is an event: Save Date, Attach to EMail. You are in the event context when you launch OneTap from Date Book record or tap on the OneTap button from a OneTap enabled Web site w/ an "activated" date.

4.3.3 Note

The following OneTap Actions will be available when the active context is a note: Save Note, Attach to EMail. You are in the Note context when you launch OneTap from Memo Pad record, tap on the OneTap button from a OneTap enabled Web site w/ an "activated" note, or select text from an EMail message and launch OneTap.

4.4 Navigation Actions

In addition to the menu items targeting the active context, a set of navigational actions will also be available. These actions will always be available from anywhere on the PDA, giving quick access to the most used Web sites and applications:

- Check Portfolio, Turn Off Modem, Travel Assistant, Launch E-Mail, Go To OmniSky Home

4.5 User Configuration

Default will be set by OmniSky, however, users will be able to configure the OneTap™ Act menu to select their favorite vendor and their most used Actions. The configuration interface is accessed from the OneTap Act menu from the PDA.

** User Configuration will not be included w/ the first release of OneTap Act.

4.6 OneTap API

Support the new XML based OneTap™ API format. See the OneTap API Specification document for details.

4.7 Supported Platforms

All OmniSky handheld platforms will be supported: Palm, HandSpring, PocketPC, etc.

4.8 Installation and Upgrade

The installation and upgrade for OneTap™ Act is the same as for, OneTap™ Save. The client-side applications are related databases are installed at the same time as the OmniSky software on the PDA. The server-side OneTap™ component is installed onto the production server at the product release time. Server-side upgrades will be performed as appropriate and will not require user intervention. Client-side upgrades will be scheduled w/ the platform product managers. The user-configured databases will be preserved through upgrades.

5 **Branding and Announcement**

5.1 Branding

OneTap™ Act will be branded as an OmniSky service.

5.2 Announcement

We will announce our OneTap™ strategy as part of an overall eCommerce and web partner integration strategy.

5.3 Availability

Initial availability will be a controlled beta release to test this new service. There will be no pricing or general availability announcements unless we are comfortable w/ the service and state of the technologies involved.

6 **Product Messages**

6.1 Elevator Pitch

To partners/merchants:

Extend your reach beyond the Web! OmniSky lets you interact directly with your customers' mobile PDA by giving users a direct link to your Web site from anywhere on their PDA.

To end-users:

OmniSky is the one mobile internet provider that gives you true integration of the Web and your PDA. With OneTap™ Act, you can quickly and easily launch some of the most useful sites on the Web, like Travelocity.com, Mapquest.com, and others, directly from anywhere on your PDA!

6.2 User Benefits

- Accessing my most used Web applications is fast and easy with OneTap™ Act.

6.3 Tag Lines – These are likely to be application-specific

- *"After looking up a directory listing, select the OmniSky OneTap™ Directions To option to launch MapBlast.com directly from the directory results Web page."*
- *"To make travel reservations, select the OmniSky OneTap™ Reserve Flight option to launch Travelocity.com from your personal Calendar."*
- *"To save a section of an E-Mail message to your Memo Pad, simply select the text and launch OneTap™ Save Note."*
- *"From the Address Book, select a phone number and launch OneTap™ Call to place a phone call."*

6.4 Key Features

- Quickly access favorite Web sites and PDA apps from anywhere on the PDA w/ OneTap™ Act
- Intelligently use data (on the Web or in the PIM apps) while accessing the Web

7 **Departmental Requirements/Impacts/ Dependencies**

7.1 Customer Support

As we promote this functionality broadly, we're bound to get support calls regarding "how-to" and bug issues. Support needs to be staffed, trained, and have access to replicated environment.

7.2 Sales

While this functionality should have a positive affect on overall sales volume via a superior user experience, it will not require a change in the sales model.

7.3 Marketing

Campaigns and collateral will need to be updated with new benefits and messages depending on focus. Co-marketing opportunities may arise with specific Web partners who want to use this functionality to demonstrate mobile leadership in working with OmniSky.

7.4 Operations

Operations will be needed to provide developers, testers, and alpha partners with a test environment.

7.5 Engineering and QA

This release will require engineering and QA resources for implementation. After reviewing this document with the Engineering and QA Teams, we will have to define the product specs in more detail as well as scope out the project.

7.6 Design

This release will require design resources for the OneTap™ Act user interface.

7.7 Content

There might be the need for working with content providers to either seek permission, review contract, or perform integration effort. As we build more confidence on this product, slotting fees should be negotiated for vendors to buy the "preferred provider" slot.

7.8 Biz Dev/Legal

We may need to review our contracts with target partners for each scenario.

8 **Issues and Open Items**

1. We need to identify a list of Web content partners to target with this service, and then determine the level of permission that is required as well as the amount of work they need to do, if any. See Appendix A for a list of all content partners with evaluations for OneTap™ Act.

9 Appendix A

Content Provider	Selection Criteria - OneTap Act				
	Popularity of Content	Relationship with Provider	"Wow" factor	Ease of implementation	Provider Interest (bcd)
10Best.com	2	3	2		
ABC News			1		
Alaska Airlines			2		
Alta Vista	1	1	1		
American Airlines		1	2		
Ameritrade			1		
AtNight	1	2	2		
Atomica (GuruNet)		3	1		
Bar Point	1	3	1		
Barnes & Noble	3	3	3		
Big Charts			1		
BizTravel.com	2	2	1		
Britannica.com	1	1	1		
Business Thinkers			1		
Buy.com	2	3	3		
CBS MarketWatch.com			1		
CBS SportsLine.com	3	3	1		
CitySearch	2	3	2		
CNBC.com			1		
CNET.com		3	1		
Conferenza		2	1		
Continental		1	1		
Deja.com	2	1	1		
Delta	3	2	3		
DLJ Direct			1		
Domino Power			1		
DrinkBoy.com	1	1	1		
Edmunds	2	3	1		
E*Trade		3	1		

eBay	3	2	1	
eFax.com	1	1	1	
eppraisals				
ESPN			2	
Etak			1	
Excite	1	2	2	
Fidelity Investments			1	
FitForAll	1	1	1	
Flowers on Command	1	3	3	
Fodors	1	1	2	
Forbes.com			1	
Fox News		3	1	
Fox Sports		3	1	
Frommer's			2	
The Funniest	1	2	1	
GetFit.com			1	
Go.com			1	
Go2Online	1	3	2	
GotSavings.com				
Google	1	1	1	
GuruNet (see Atomica)	1	1	1	
the HealthChannel	1	2	1	
Homes.com	1	1	2	
Hoover's Online			1	
Inside.com	1	1	1	
IQTaxi	1	2	2	
Launch.com				
MapBlast	2	3	3	
MapQuest	2	3	3	
Maxbaseball.com	2	2	1	
Maxfootball.com	2	2	1	
Mercata	1	3	2	
Merriam Webster	1	1	1	
Moviefone	3	3	2	
MSNBC		3	1	
My Docs Online	1	1	1	
mySimon	2	3	1	
New York Times		2	1	
New York Post	1	1	1	
NextBus	1	3	1	
NWA.com			1	
1-888 TaxiCab	1	2	1	
Ontheroad.com	1	1	2	
OVERbid	1	3	1	
PalmPower			1	
PCWorld.com	2	2	1	

Real Cities	1	2	1	
Red Herring	1	1	1	
RestaurantRow.com			2	
RollingStone.com	1	1	1	
Salon.com			1	
SavvyDiner	1	2	1	
Search4Auctions			1	
Shadowpack			1	
ShopNow.com	1	1	1	
Silicon Investor		1	1	
Smaller.com			1	
Snaz	1	3	3	
Snow2Go	1	1	1	
SPACE.com	1	2	1	
Sports.com	2	3	1	
StockSmart	1	1	1	
The Economist			1	
The Motley Fool			1	
The Sporting News			1	
The Standard		2	1	
The Street.com		2	1	
The Wall Street Journal		1	1	
Theatre.com			1	
TicketMaster	2	3	2	
Trailworks.com			1	
Travelocity.com		0	3	
TV Guide	1	1	3	
uCook.com	1	1	2	
United	3	3	1	
UPS	3	1	3	
USA Today			1	
Variety.com	1	1	1	
Vicinity		3	2	
VisorCentral	2	2	1	
vVault	1	1	1	
Wcities	1	2	2	
Weather.com	3	2	2	
wfn.com		3	1	
Windows CE Mag.			1	
Women.com			1	
Yahoo	2	3	2	
Yodlee			1	
ZDNet			1	

OmniSky

OneTap™
OneTap™ Fill

Marketing Requirements Document

Draft 1.5

01/25/01

Hee Jung Lee

Availability: TBD

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1 Overview

While a wealth of useful (and reusable) information resides in PIM databases, each application and its associated databases are discrete entities that do not share its data and its services with others. Effectively, walls can be said to exist between the PIM applications, PIM data, Web applications, and Web data. The goal of OneTap™ is to break down these walls and enable the access of applications and the reuse of existing data (on the PDA or the Web) to minimize the number of taps and text entries required to interact with mobile Web applications. OneTap™ Fill breaks the wall between the PIM data and the Web applications by enabling the access of PIM data from Web applications to fill in online forms.

The main purpose of this Release is to more fully utilize the power of the mobile professional's personal digital assistant (PDA) by creating a two-way bridge between relevant Web-based applications and the handheld device's personal information management (PIM) applications (specifically, the Calendar, Address Book). The OneTap™ 2.0 release will provide our partners with the tools (APIs) for creating more powerful Web services by enabling the access of PIM data from Web applications. These APIs will give users access to view and upload the information that resides in their PIM databases (such as Address Book and Calendar) while they are filling in online forms on the Web (to get driving directions, make travel plans, give gifts, etc.). By enabling the sharing of PIM data w/ Web applications, we help minimize the number of taps and text entries required to interact with Web applications, greatly improving the user experience of the OmniSky service.

2 Release Objectives

- Continue to position OmniSky as the leading provider of wireless services.
- Continue supporting an overall OmniSky OneTap™ strategy, whereby OmniSky takes leadership position in working with premier online services and eCommerce merchants.
- Be the first to announce and ship functionality of this type.
- Deliver a handful of "Wow" end-user features that demonstrate true value-added benefits to the mobile professional when the data from the user's PDA is accessible from the wireless Web.
 - Specifically, the PIM Address Book and the PIM Calendar
 - Make mobile purchasing easier by enabling the form filling of delivery addresses by selecting an entry from the PIM Address Book.
- Continue building the foundation for OmniSky to work with third-party merchants, web service providers, and developers to offer new solutions in the mobile space, using APIs. Use this foundation to "lock in" both partners (with better joint offerings) and consumers (with unique functionality).

2.1 Availability

- Beta TBD
- General Availability – Included as part of the OmniSky 3.0 General Release.

3 Target Market

3.1 Primary User Profile

- Sales, marketing, and technical professionals in hi-tech/computer related field
- Travels frequently or are away from their connected desktops frequently
- Actively uses their PDA to manage Calendar, Address Book, To Do list, and to make notes (Memo Pad).

- Actively uses the Web to access information, make travel reservations, perform online transactions, shop, etc.

3.2 User Scenarios

The general user scenario is any situation where the mobile professional is using his or her OmniSky service to browse or transact online, and wants access to some relevant data that resides locally within his or her PIM application. Depending on the specific scenario, data is accessed from the Calendar and the Address Book.

The scenarios depicted below are meant to be examples of how the following APIs can be used. There are potentially unlimited user scenarios based on any number of web sites that offer solutions based on these APIs. Nevertheless, these specific examples should give a good understanding of what is generally possible. Please note that these examples are NOT confirmed as offerings for this release; as we move forward on this project we will be defining good candidate sites, and signing up the best ones to launch with.

Supported Scenarios:

4.2.1 Flight Reservations Example	Example of pulling relevant information from the PIM Calendar and transferring it to the Web
4.2.2 Driving Directions Example	Example of pulling relevant information from the PIM Address Book and transferring it to the Web
4.2.3 Gift Giving Example	Example of pulling relevant information from the PIM Address Book and transferring it to the Web

3.2.1 *Supported Scenario – Flight Reservation Example (Calendar)*

Flight Reservations Example: Travelocity.com

Scenario: Joe is a salesman for a nationwide conglomerate and is a frequent flier. He uses his Palm Vx to keep his Calendar, and Travelocity.com to book flights. Sometimes he needs to book new flights or change flights while on the road.

Problem: With his full and changing travel and work schedule, managing his Calendar is a continual challenge for Joe.

Solution: Joe logs onto Travelocity.com (via OmniSky) to book a flight. To set his departure and return dates and times, he taps to browse through his appointments in his personal Calendar and selects the dates and times. After “OneTapping” to select, these dates are used to fill in the Travelocity form.

Extended Solution: After confirming the flight, he sees the option: “Add flight to Date Book”? He taps “Yes”, and his flight information is automatically added to his Calendar using the OneTap™ Save functionality. He then Emails this Calendar entry his business associates.

3.2.2 *Supported Scenario – Driving Directions Example (Address Book)*

Driving Directions Example: Mapquest.com

Scenario: Paul is an account manager for a national technology supply company with a handful of large accounts, each having multiple manufacturing sites across the country. He is an avid Mapquest.com user.

Problem: While Paul loves using Mapquest.com on OmniSky to get directions while on the road, it takes time to enter the addresses into the online forms.

Solution: Paul logs onto Mapquest.com to get driving directions. The starting address has been pre-populated with his company address. He sees a “Fill Address” button below the starting address fields and a second “Fill Address” button below the destination address. He taps on the second “Fill Address” button to select his destination address from his personal Address Book. He taps on the MapQuest “Get Directions” button and gets the driving directions.

3.2.3 Supported Scenario – Gift Giving Example (Address Book)

Gift Giving Example: Flowers.com

Scenario: Bob is an executive who frequently travels on business and needs reminders about his personal commitments.

Problem: Bob sometimes forgets his personal commitments because of his busy work schedule.

Solution: While waiting for a flight to his next business meeting, Bob gets a calendar alert reminding him that his sister’s birthday is in one week. He logs onto Flowers.com and purchases a birthday bouquet as a gift and fills in the delivery address by selecting his sister’s address from his PIM address book.

4 Product Requirements

This section describes the high level requirements, with an overview of how the API’s will need to work. More extensive functional and user interface definition are depicted in the product requirements and technical specifications documents.

Fundamentally, the API must give OmniSky partners a format for creating Web forms that includes OmniSky branded OneTap™ Fill Data buttons that gives users access to the appropriate PIM data (stored on their handheld device) and ‘pull’ the selected record up to their Web site to fill in the form.

4.1 How It Works

Similar to the first release of OneTap™, OmniSky will provide a set of APIs that will enable OneTap™ Fill on a Web page. The API code is in the form of an HTML comment¹ so that the presentation of the web site is in no way affected when viewed on other devices or using other services. These APIs will be supported on all OmniSky platforms.

On the OneTap™ enabled sites, the end-users are presented with OmniSky branded “Fill Data” buttons that are configured to give access to and ‘pull’ the appropriate information from the specific PIM applications. When a “Fill Data” button is pressed, the appropriate PIM app data become accessible to the user. When a record is selected, the associated HTML form fields on the Web site are filled in with the selected data from the PIM application.

4.1.1 Implementation on Content Partner Web Sites

To enable the upload of information from the PIM applications to a Web site, the content partners must incorporate the OneTap™ API code into the HTML forms of their HTML files. The OneTap™ API parameter values must be mapped to the names of the input fields of the HTML forms.

¹ The HTML comment used for this looks like: <!-- OneTapAPI >

4.1.2 Usage Model

The usage model for this application calls for a situation where the user is browsing a web site using his or her OmniSky-enabled handheld and wants access to some relevant data that resides locally within his or her PIM application (specifically, the contact information from the PIM Address Book and appointments from the PIM Calendar). Examples of this usage model have been depicted above with a possible scenario for each application.

4.2 User Interface (UI) Requirements

OneTap™ should map to an OmniSky customer's familiar handheld user experience, regardless of the specific API that is being used. This will offer OmniSky users a convention that they can rely upon for easy tap navigation.

4.2.1 General UI Requirements

- Consistent user interface for accessing local databases from the wireless Web sites.
- Intuitive interface for navigating and tapping to select data from the PIM applications.
- Specifics of the customer interaction will vary by site and will be specified in detail in the product requirements document (PRD).

4.3 API Requirements

- Easy to use
 - Implementing OneTap™ Fill on a partner's Web site should be as simple and easy as v1.0's OneTap™ Save APIs
- Platform independent
 - One implementation of the API (by the partners) should work on all OmniSky Supported platforms: Palm, Handspring, Pocket PC, etc.
- Compatibility w/ other services & platforms
 - The API code is in the form of an HTML comment so that the presentation of the web site is in no way affected when viewed on other devices or using other services.
- Compatibility w/ other OneTap™ APIs
 - The Fill API can co-exist with the previous OneTap™ Save APIs

4.4 Supported Platforms

All OmniSky handheld platforms will be supported: Palm, HandSpring, PocketPC, etc.

4.5 Installation and Upgrade

The installation and upgrade for OneTap™ Fill is the same as for the previous version, OneTap™ Save. The client-side applications are installed at the same time as the OmniSky software on the PDA. The server-side OneTap component is installed onto the production server at the product release time. Server-side upgrades will be performed as appropriate and will not require user intervention. Client-side upgrades will be performed w/ ScoutSync.

5 Branding and Announcement

- 5.1 Branding
OneTap™ will be branded as an OmniSky service. UI elements including the “Fill Data” buttons will be OmniSky branded.
- 5.2 Announcement
We will announce our OneTap™ strategy as part of an overall Commerce and web partner integration strategy.
- 5.3 Availability
Initial availability will be a controlled beta release to test this new service. There will be no pricing or general availability announcements unless we are comfortable w/ the service and state of the technologies involved.

6 Product Messages

6.1 Elevator Pitch

To partners/merchants:

Extend your reach beyond the Web! OmniSky lets you interact directly with your customer's mobile PDA by giving you the ability to access and upload data from your customer's Address Book and Calendar to your Web site. It is simple to implement and easy to use, leading to greater usage and fewer “lost” users.

To end-users:

OmniSky is the one mobile internet provider that gives you OneTap™ integration with some of the most useful sites on the Web, like Travelocity.com, Mapquest.com, and others! Using OneTap™ Fill, you can more easily interact with the Web by “OneTapping” to fill in Web forms w/ data that you have stored on your Calendar and Address Book.

6.2 User Benefits

- Filling in Web forms is fast and easy w/ OneTap™ Fill.
- I never have to reenter data that already exists on my handheld.
- I can browse my appointments when selecting my reservation dates.

6.3 Tag Lines – These are likely to be application-specific

- *“When making travel reservations using Travelocity.com, select dates and times from your personal Calendar with OneTap™ from OmniSky.”*
- *“When looking up driving directions on Mapquest.com, select addresses directly from your personal Address Book with OneTap™ from OmniSky.”*
- *“When buying gifts using Amazon.com, select the delivery address from your personal Address Book and the delivery date from your personal Calendar with OneTap™ from OmniSky.”*

6.4 Key Features

- From a Web site, API to access and upload data from the PIM Calendar with OneTap™
- From a Web site, API to access and upload data from the PIM Address Book with OneTap™

7 Departmental Requirements/Impacts/ Dependencies

7.1 Customer Support

As we promote this functionality broadly, we're bound to get support calls regarding "how-to" and bug issues. Support needs to be staffed, trained, and have access to replicated environment.

7.2 Sales

While this functionality should have a positive affect on overall sales volume via a superior user experience, it will not require a change in the sales model.

7.3 Marketing

Campaigns and collateral will need to be updated with new benefits and messages depending on focus. Co-marketing opportunities may arise with specific Web partners who want to use this functionality to demonstrate mobile leadership in working with OmniSky.

7.4 Operations

Operations resources will be needed to provide developers, testers, and alpha partners with a test & staging environment.

7.5 Engineering and QA

This release will require engineering and QA resources for implementation. After reviewing this document with the Engineering and QA Teams, we will have to define the product specs in more detail as well as scope out the project.

7.6 Design

This release will require design resources for modification of OEM applications as well as developing some of our own.

7.7 Content

There might be the need for working with content providers to seek permission, review contract, or perform integration effort.

7.8 Biz Dev/Legal

We may need to review our contracts with target partners for each scenario.

8 **Partner Requirements**

To participate in the OneTap initiative, each partner will be required to modify their OmniSky-optimized web site to take advantage of this functionality. This includes:

- Using OmniSky's OneTap™ API within their HTML code.
- Other?

9 **Issues and Open Items**

1. We need to identify a list of Web content partners to target with this service, and then determine the level of permission that is required as well as the amount of work they need to do, if any. See Appendix A for a list of all content partners with evaluations for OneTap™ Fill.
2. Technology issue:
 1. On PalmOS, Clipper cannot support this feature. We need to work with the Browser selection team to select a suitable browser.
3. Advanced feature: User profile extension

To facilitate buying using the OmniSky service, default values will be stored in a basic User Profile (on the PDA) and used to fill in basic purchasing forms (using OneTap™ Fill). The basic User Profile (no sensitive data, ex. Credit card number) will consist of the default billing, shipping addresses, etc. For example:

 - User sets the default shipping address in his/her User Profile. When a partner uses the “Fill Address” API with a Default attribute (ex. Default=“Shipping”), the appropriate default address is pulled from the PDA and the form is displayed with the default values already populated. The user can tap to select a different address from the Address Book.
 - On a smaller scale, when a partner uses the “FillAddress” API with a Default attribute (ex. Default=TRUE or Default=“BusinessCard”?), the user’s default address populates the address form fields.

A full User Profile including credit cards, personal info, etc. will need to be on a server for security reasons. This is a separate project.

10 Appendix A

Content Provider		Selection Criteria - OneTap Fill				
		Popularity of Content	Relationship with Provider	"Wow" factor	Ease of implementation	Provider Interest (tbid)
10Best.com		2	3	2		
ABC News				1		
Alaska Airlines				2		
Alta Vista		1	1	2		
American Airlines			1	2		
Ameritrade				1		
AtNight		2	2	1		
Atomica (GuruNet)			3	1		
Bar Point						
Barnes & Noble		3	3	3		
Big Charts				1		
BizTravel.com		2	2	1		
Britannica.com		1	1	1		
Business Thinkers				1		
Buy.com		3	3	3		
CBS MarketWatch.com				1		
CBS SportsLine.com		3	3	1		
CitySearch		2	3	2		
CNBC.com				1		
CNET.com			3	1		
Conferenza				1		
Continental			1	1		
Deja.com		3	2	3		
Delta						
DLJ Direct				1		
Domino Power				1		
DrinkBoy.com		1	1	1		
Edmunds						
E*Trade			3	1		
eBay		3	2	3		

eFax.com		1	1	1		
eppraisals						
ESPN				2		
Etak				1		
Excite		1	2	2		
Fidelity Investments				1		
FitForAll		1	1	1		
Flowers on Command		1	3	3		
Fodors		2	1	2		
Forbes.com				1		
Fox News			3	1		
Fox Sports			3	1		
Frommer's		2	1	2		
The Funniest		1	1	1		
GetFit.com		1	1	1		
Go.com		2	1	1		
Go2Online		1	3	2		
GotSavings.com						
Google		1	1	1		
GuruNet (see Atomica)		1	1	1		
the HealthChannel		1	2	1		
Homes.com		1	1	2		
Hoover's Online				1		
Inside.com		1	1	1		
IQTaxi		1	2	2		
Launch.com				1		
MapBlast			3	3		
MapQuest			3	3		
Maxbaseball.com		2	2	1		
Maxfootball.com		2	2	1		
Mercata		1	3	2		
Merriam Webster		1	1	1		
Moviefone		3	3	2		
MSNBC			3	1		
My Docs Online		1	1	1		
mySimon						
New York Times			2	1		
New York Post		1	1	1		
NextBus		1	3	1		
NWA.com				1		
1-888 TaxiCab		1	2	1		
Ontheroad.com		1	1	2		
OVERbid		1	3	2		
PalmPower				1		
PCWorld.com		2	2	1		
Real Cities		1	1	1		

Red Herring		1	1	1	
RestaurantRow.com		1	1	2	
RollingStone.com		1	1	1	
Salon.com				1	
SavvyDiner		1	2	2	
Search4Auctions		1	3	2	
Shadowpack				1	
ShopNow.com					
Silicon Investor			1	1	
Smaller.com				1	
Snaz		1	3	3	
Snow2Go		1	1	1	
SPACE.com		1	1	1	
Sports.com		1	1	1	
StockSmart		2	3	1	
The Economist				1	
The Motley Fool				1	
The Sporting News				1	
The Standard			2	1	
The Street.com			2	1	
The Wall Street Journal			1	1	
Theatre.com				1	
TicketMaster		2	3	2	
TrafficStation		1	1	1	
Trailworks.com		1	2	1	
Travelocity.com			0	3	
TV Guide					
uCook.com		1	1	2	
United		3	3	1	
UPS		3	1	3	
USA Today				1	
Variety.com					
Vicinity			3	2	
VisorCentral		2	2	1	
vVault		1	1	1	
Wcities		1	2	2	
Weather.com		3	2	2	
wfn.com			3	1	
Windows CE Mag.				1	
Women.com		1	1	1	
Yahoo		2	3	2	
Yodlee				1	
ZDNet				1	